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ULTIMATE TYRE TEST



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ULTIMATE TYRE TEST

WHAT IS THE UK'S BEST MUD-TERRAIN?


They're the only thing between you and the ground, the only thing that will keep you going when the mud gets tough. But which off-road tyre is best for you and your 4x4?

Words: Chris Lorigan Photos: Wayne Mitchelson





WHAT TYRE?



You wouldn't wear rubber gloves in a boxing bout; you wouldn't wear leather-soled shoes to play football. You need the right tool for the job, and when it comes to off-road driving in the UK your best mate is the mud-terrain tyre. If you don't have traction, you ain't going far, despite air lockers, trick suspension and the torque levels of a tank.

With so many mud-terrain (MT) tyres available, how do you know if the set you buy is going to get you up the slopes, across the grass, over the rocks and through the bog unless you fork out hundreds of pounds and try them on your motor? You don't, and many 4x4 drivers just take the gamble and see what happens.

Not all tyres are created equal, so we've gathered together eight sets of similar, readily-available mud-terrains to see where and when they'll do the job in the rough. We've kept away from the kind of tyres that'll take you through the swamps of the Rainforest Challenge, because

the tyres we've tested here are the ones you're more likely to use as your everyday mud tyre, the ones that'll take you down the road to work and off the road in the weekend. Each set is well suited to our particular mix of bog, clay, slime, gravel and rock.

We took each set of tyres, all 235/85 R16s, through six challenging real-world tests in order to help you make your next MT purchasing decision. Our testing was as objective and controlled as possible, with a variety of off-road situations to reflect the breadth of use they receive in this country. We used one vehicle, a 2007 Land Rover Defender 110, and one driver throughout the testing. Terrain conditions were the same for all tyres, with each proving itself worthy in different situations.

At the end of two days' testing there wasn't much to separate the tyres; they're all very good. But, like anything, some are better than others. Which will best suit your specific needs?



8th Position / 22 points



PIRELLI SCORPION MUD

With more prominent sidewall lugs than its opposition in this test, the aggressive Pirelli Scorpion Mud tyre certainly looked the part. In the end, though, the points showed that, while placing an admirable third in our important wet grass side slope test, middling to bottom scores for everything else means that the Pirelli sits at the bottom of the table. Someone has to, unfortunately, but wet grass and side slopes combine to make probably one of the most hazardous off-road obstacles you can encounter, so this is a definite plus for the Scorpion Mud.

In the telling mud climb and bog run tests, where an MT should be right at home, the Pirelli was in the lower ranks, although it wasn't far behind its rivals on the muddy hill where a little over 3 metres (9.8 feet) separated first and last place. It isn't a rock tyre, proving too rigid to progress through our course, and braking on both gravel and

tarmac felt stable but, when it counted, stopping distance was only average.

The Pirelli gripped well from a standing start in the deep mud at the bottom of our hillclimb; better, in fact, than most of the others – if this had been a test in its own right the Pirelli would have scored very well. Likewise, if we'd been testing sidewall grip the Pirelli would have fared very well. We had to draw the line somewhere, though, or we'd have been testing for a month.

Pirelli makes great road and racing tyres, there's no question of that. Their mud-terrain will serve you miles better than any all-terrain ever will, but, in the context of this test, there are other options that might serve you slightly better, many of them cheaper.



MUD CLIMB

DISTANCE 20.8m
RANKING 6th
POINTS 3



BOG RUN

DISTANCE 12.7m
RANKING 7th
POINTS 2



SIDE SLOPE

DISTANCE 12.8m
RANKING 3rd
POINTS 6



ROCK CRAWL

Halfway through
RANKING 7th=
POINTS 2



GRAVEL BRAKING

DISTANCE 15.3m
RANKING 5th
POINTS 4



TARMAC BRAKING

DISTANCE 16.3m
RANKING 4th
POINTS 5



The Pirelli gripped well from a standing start in the deep mud

6th Equal / 26 points



INSA TURBO SAHARA

This bold, chunky remould tyre looked fantastic on the Defender, its tread pattern markedly different from the others in the test. The Spanish tyre expelled mud, or 'self-cleaned', very well, which, while not a feature we tested outright, helped it place first in the bog run; the only other tyre to make it all the way to the top of the bog obstacle was the Wildcat, with both sets of rubber showing remarkable traction ability in a very tricky situation.

The Insa came third in the mud climb, which, coupled with its bog performance, had us thinking that it could be a firm contender for a high placing over all – it was only half a metre (1.6ft) behind the second-placing Kumho. However, braking let the Insa down as it languished at the back of the field on both gravel and tarmac.

It looked as though it would do well in the rock-crawl test, but didn't make it past the halfway mark it shared with the Pirelli. In

the UK, rock performance is arguably less important than mud and bog abilities. The Insa finished mid-table on the side slope test and, despite the slippery grass, they felt secure under me as I headed toward my bottle limit before they slid sideways under the Land Rover.

The Insa is a good, solid all-rounder and it really wins on pricing at around £65 plus VAT each. Price isn't on test, though; actual, on-the-ground capability is key – if you're stuck in a bog it doesn't matter how much money you've saved or spent. Still, they're great value, a lot cheaper than other tyres in the group, and for the marginal improvement you might get out of a dearer option, you might as well try a set of these.



MUD CLIMB

DISTANCE 21.4m
RANKING 3rd
POINTS 6



BOG RUN

DISTANCE To top
RANKING 1st=
POINTS 8



SIDE SLOPE

DISTANCE 11.5m
RANKING 4th=
POINTS 5



ROCK CRAWL

Halfway through
RANKING 7th=
POINTS 2



GRAVEL BRAKING

DISTANCE 15.7m
RANKING 7th
POINTS 2



TARMAC BRAKING

DISTANCE 18.2m
RANKING 6th
POINTS 3

At around £65 each plus VAT, you might as well try a set of these remoulds

6th Equal / 26 points



COOPER DISCOVERER STT

This tyre is growing in popularity across the UK, with many proud and increasingly loyal users keeping them on their 4x4 full-time. They look good and seem to last well, and, in this event, braking was its key strength as it won the tarmac test and came second on gravel as the Defender reached a safe stop well before most of the other brands. Cooper owners should feel safe and confident with a set of these under the wheelarches.

On the down side, though, the muddier tests proved the Discoverer's undoing as the tyre struggled for grip both under power and with careful torque-led negotiation on the bog run and hill climb, the latter its only last placing of the day.

From a distance you could be forgiven for confusing the Cooper's tread pattern with the Goodyear's; the Goodyear is more open, perhaps allowing for better self-cleaning in thick mud as it bested the Cooper by a

considerable 1.4m [4.6ft] on the steep, muddy climb. The Cooper surpassed only the Wildcat on our grassy side slope obstacle, but its rock-crawling ability almost had it up there with Goodyear, Wildcat and Kumho on the rough stream bed; perhaps if the tread was slightly more open or the tyre more pliant it would have gone that short extra distance and picked up a few valuable points.

The Cooper's overall even pegging with the Insa proves that each of these tyres has its own set of strengths and weaknesses: where the Insa scored on the muddier tests it lost points when braking, while the opposite is true for the Cooper. Plus, being a remould, the Insa is likely to be outlasted by the tough but, in this case, less bog-biased Cooper.



MUD CLIMB

DISTANCE 19.7m
RANKING 8th
POINTS 1



BOG RUN

DISTANCE 15.1m
RANKING 6th
POINTS 3



SIDE SLOPE

DISTANCE 11m
RANKING 7th
POINTS 2



ROCK CRAWL

Beyond halfway
RANKING 4th=
POINTS 5



GRAVEL BRAKING

DISTANCE 13.9m
RANKING 2nd
POINTS 7



TARMAC BRAKING

DISTANCE 14.8m
RANKING 1st=
POINTS 8


Cooper owners should feel safe and confident on a set of these



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5th Position / 27 points



WILDCAT EXT RADIAL LT

Many of the tyres in this test are big, recognisable, international brands; but don't underestimate a name you might not have heard of. At first glance you'd easily mistake the Wildcat for a BFG – it's considerably cheaper but with that saving comes a bit of a performance compromise in these tests.

The Wildcat didn't do particularly well in the two braking challenges and turned in the poorest showing of the eight tyres on our grass side slope. However, it did, along with the Insa, prove itself extremely capable on the tricky bog run as it clawed its way right to the top of the loose, sodden hill; it never looked like stopping, ripping through the ground and spitting out clods of bog in its wake as the Land Rover hit the summit and skipped over onto the gravel trail. That traction performance wasn't quite repeated on the mud climb, but it was only 200mm (7.9in) behind the Insa here.



The Wildcat proved itself to be a pretty handy rock crawler, for a while looking like it might go all the way and score an outright win. As it was, it shared first place with the Goodyear and the Kumho here but didn't quite have the grip to pull the Defender over the last rocky ledge to throw those big brands into joint second place.

The Wildcat felt reliable throughout the testing but, unfortunately, nothing it did was quite good enough to take it beyond fifth place on this occasion; two first place finishes didn't do the trick.

The tyre looked the part on the Defender wheels and, at around £30 cheaper than the BFG, should give the off-road enthusiast pause for thought.



MUD CLIMB

DISTANCE 21.2m
RANKING 4th
POINTS 5



BOG RUN

DISTANCE To top
RANKING 1st=
POINTS 8



SIDE SLOPE

DISTANCE 9.9m
RANKING 8th
POINTS 1



ROCK CRAWL

Almost clear
RANKING 1st=
POINTS 8



GRAVEL BRAKING

DISTANCE 15.5m
RANKING 6th
POINTS 3

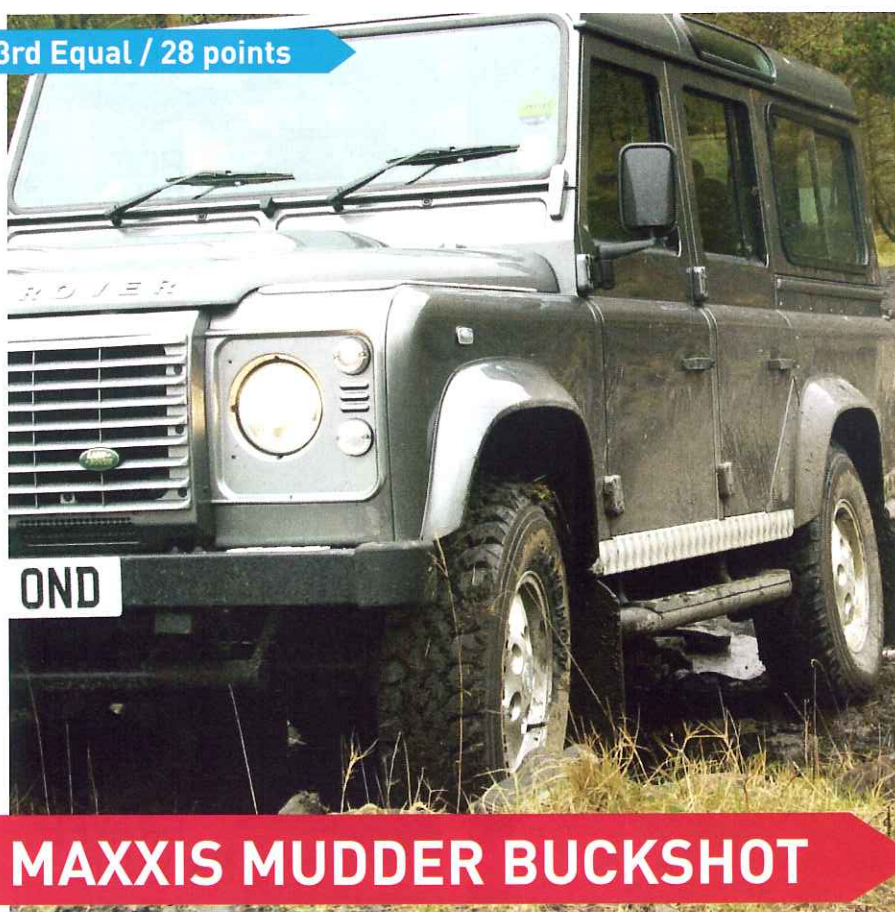


TARMAC BRAKING

DISTANCE 18.6m
RANKING 7th=
POINTS 2

The Wildcat clawed its way right to the top of the loose, sodden hill

3rd Equal / 28 points



MAXXIS MUDDER BUCKSHOT

I'd probably buy a set of these for the name alone: 'Mudder Buckshot' sounds like you're about to head off into the Mississippi delta with some of the good ol' boys for some serious off-roading in the swampy wilderness.

Coming in third, even if it is shared with a rival, is no mean feat, and the well-priced Maxxis was a solid all-round performer with a few highlights thrown in to pull it up the table. Its main points haul came from superb braking on tarmac. The Maxxis was, interestingly, the only tyre in this test to take longer to stop on gravel than on tarmac.

Fourth in the bog run wasn't bad for a tyre that didn't perform too well on the mud climb; but, like the Insa, it self-cleans well and, in slightly different terrain conditions, might have you through the muck and out the other side while the guy on rubber from higher up our table flounders around on the end of a winch cable cursing your name.



Like the Cooper and BFG, the Maxxis did pretty well on the rocks, although we'd expected the open pattern of the Mudder to help heave the Defender through to a clear on the section; they felt pliant on the boulders, but something stopped them from achieving better things here. With very little in the way of sidewall grip, ruts and tight rocky terrain could trip the Maxxis up a little. However, side lugs aren't everything, as the Pirelli's performance illustrates above.

This is a humble but very able tyre, its traditional tread pattern not at all dissimilar to that of the BFG, Wildcat and Pirelli. Third place in this set of tests is highly respectable.

I'm off to the Mississippi for a spot of Mudder Buckshotting.



MUD CLIMB

DISTANCE 20.2m
RANKING 7th
POINTS 2



BOG RUN

DISTANCE 15.8m
RANKING 4th
POINTS 5



SIDE SLOPE

DISTANCE 16.5m
RANKING 2nd
POINTS 7



ROCK CRAWL

Beyond halfway
RANKING 4th=
POINTS 5



GRAVEL BRAKING

DISTANCE 18.7m
RANKING 8th
POINTS 1



TARMAC BRAKING

DISTANCE 14.8m
RANKING 1st=
POINTS 8



Third place in this set of tests is highly respectable for this humble tyre

3rd Equal / 28 points



GOODYEAR WRANGLER MT/R

Third equal across these six tests is a great result for this tried and trusted American brand, the third largest tyre company in the world.

As you'd expect from a US 4x4 tyre, rock crawling ability was right up to par as it joined the Kumho and Wildcat in first place here, but these 8 points were cancelled out by its disappointing single point for last place in the bog run.

The Goodyear's tread pattern allowed for decent self-cleaning on the mud climb despite the tyre only just, by 10cm (3in), failing to pull past the Wildcat to reach fourth on the slippery hill. Its mud expulsion ability didn't, though, translate to success on the bog run.

Braking on gravel netted the Wrangler MT/R third place, but the extra three metres (9.8ft) it took to stop on tarmac meant it lost a few points. The Goodyear slipped sideways on the side slope at exactly the same spot as

the Insa and Kumho, while a fifth placing on the mud climb showed that this tyre would prove useful to off-road drivers for whom mud and bog is only a small part of what they encounter in the weekend.

The Goodyear looks good but would be a fairly loud tyre to live with on the road. Durability is a strong point, which will come in handy for rock enthusiasts and those who run MTs on the road. The Goodyear is the most expensive in this group, so durability is key if you don't want to pay regular visits to the tyre fitter.

Another all-rounder, the Wrangler MT/R will serve most UK users well, as most green lanes have a broad mix of surfaces to contend with. Treat it like an aggressive all-terrain.



MUD CLIMB

DISTANCE 21.1m
RANKING 5th
POINTS 4



BOG RUN

DISTANCE 11.4m
RANKING 8th
POINTS 1



SIDE SLOPE

DISTANCE 11.5m
RANKING 4th=
POINTS 5



ROCK CRAWL

Almost clear
RANKING 1st=
POINTS 8



GRAVEL BRAKING

DISTANCE 14.4m
RANKING 3rd
POINTS 6



TARMAC BRAKING

DISTANCE 17.4m
RANKING 5th
POINTS 4



Another all-rounder, the Wrangler MT/R will serve most UK users well

1st Equal / 36 points



BF GOODRICH MT T/A

Considered by some to be the original and best mud-terrain, this highly popular tyre is used and respected all over the world. Every off-road driver has probably driven on or owned a set, and its reputation is well-deserved. Others aren't far behind, with relative newcomer Kumho, at this stage less common in the UK than the BFG, sharing its 36 points for equal first place in our battery of tests.

Slippery mud and dangerous grass were its key strengths, with both obstacles proving no problem for the traditional American as it came in first place for both. The mud climb felt easy as the Defender scrambled to the highest point on the greasy slope nearly a metre (3.3ft) ahead of its closest rival in this test, the Kumho.

The BFG almost made it as far as the Goodyear on the rocks, but didn't quite have whatever it took to go that important extra foot, whether it be composition or tread

pattern. The reasons why a tyre might not be good at something isn't as important to the user as it is to research and development departments, as all we need to know is what a tyre does or doesn't do.

The BFG is a great performer, a below average showing on the bog run its only real downfall, and the only real reason it didn't win this event outright. But that's an important aspect of a mud tyre in the UK, and this is arguably the reason to choose, or at least try, the Kumho. The BFG was, though, streets ahead of all rivals on the wet grass side slope, which is a very important consideration; I hate side slopes and I hate grass, so, when they're combined, a BFG would be the tyre I'd want on my rims.



MUD CLIMB

DISTANCE 22.8m
RANKING 1st
POINTS 8



BOG RUN

DISTANCE 15.7m
RANKING 5th
POINTS 4



SIDE SLOPE

DISTANCE 21.4m
RANKING 1st
POINTS 8



ROCK CRAWL

Beyond halfway
RANKING 4th=
POINTS 5



GRAVEL BRAKING

DISTANCE 14.8m
RANKING 4th
POINTS 5



TARMAC BRAKING

DISTANCE 15.3m
RANKING 3rd
POINTS 6

The BFG was streets ahead of all rivals on the wet grass side slope



1st Equal / 36 points



KUMHO MT KL71

The KL71 looks considerably different from all its competitor tyres in this test. With broad lugs and a very open tread pattern, Kumho is obviously trying to innovate. And, judging by this set of tests, they're succeeding. They have a long way to go to garner broad respect in Britain, but they're well on their way with this impressive and capable tyre.

The only real let-down across all tests was its poor braking performance on tarmac, but it made up for this by winning the gravel braking by over half a metre (1.6ft).

Other than that, its lowest score was a fourth equal on the side slope; 11.5m along the escarpment wasn't a bad showing, but its BFG rival sailed well beyond it here. A third on the bog run was followed up by a second on the mud climb; this came as something of a surprise to us, as you wouldn't necessarily predict decent mud traction potential just by looking at the tread pattern.



The KL71 proved its worth on the rock crawl section, gripping well on both smooth and sharp edges. Despite reaching the same point on this test as the Goodyear and the Wildcat, it seemed to do so with more of an effort; maybe a slight adjustment in driving technique could have been the key variable here, though.

For an MT, the Kumho is very quiet on road, its handling pretty good. We decided that the KL71 was the best-looking tyre on the Defender, but this is of no objective consequence and I'm that sure many of you will disagree.

This is a great tyre and, like the BFG, ended up eight points clear of its closest rivals in our testing. Give it a try.



MUD CLIMB

DISTANCE 21.9m
RANKING 2nd
POINTS 7



BOG RUN

DISTANCE 16.2m
RANKING 3rd
POINTS 6



SIDE SLOPE

DISTANCE 11.5m
RANKING 4th=
POINTS 5



ROCK CRAWL

Almost clear
RANKING 1st=
POINTS 8



GRAVEL BRAKING

DISTANCE 13.3m
RANKING 1st
POINTS 8



TARMAC BRAKING

DISTANCE 18.6m
RANKING 7th=
POINTS 2

Kumho is obviously trying to innovate, and they look like succeeding

THE VERDICT

While the distances separating the tyres in many of these tests might seem small, they are significant. One more inch up a slope or across a bog could be the difference between getting home in time for tea and waiting for a tractor.

We tried to represent the key obstacles and conditions you'd encounter in the UK, and the site was wet to the same degree all day. We made sure the terrain, particularly the mud and bog sections, presented the same challenge to all tyres, choosing fresh lines to make things fair.

The mud climb, for example, was already well chewed up when we got there.

Like any testing, another day and another team might reach different conclusions; but, on this occasion, the BFG and Kumho were deserving all-round winners.

Tyre choice is dependent on specific usage requirements, so some of the tests will be of more use to different buyers. Selection ought to be based not necessarily on an outright winner, but on the tyre that's best for the job at hand.

Note: Prices mentioned here are approximate and will vary from supplier to supplier.



KUMHO ROAD VENTURE MT KL71 LT 235/85 R16

Approx. £100 incl. VAT ea.
www.kumhotyre.co.uk; 020-8661-6112



BF GOODRICH MUD-TERRAIN T/A 235/85 R16

Approx. £125 incl. VAT ea.
www.bfgoodrich.co.uk; 0800 0960381



GOODYEAR WRANGLER MT/R LT 235/85 R16

Approx. £180 incl. VAT ea.
www.goodyear.com; 0121 306 6000



WILDCAT EXT RADIAL LT 235/85 R16

Approx. £95 incl. VAT ea.
www.johnocraddockltd.co.uk; 0845 3444 111



MAXXIS MUDDER BUCKSHOT LT 235/85 R16

Approx. £80 excl. VAT ea.
www.maxxis.co.uk; 01928 706166 (Group tyre)



COOPER DISCOVERER STT LT 235/85 R16

Approx. £80 excl. VAT ea.
www.sintontyres.co.uk; 01908 665591



INSA SAHARA 4X4 TURBO RALLY LT 235/85 R16

Approx. £65 excl. VAT ea.
www.southam-tires.co.uk; 01926 813510



PIRELLI SCORPION MUD LT 235/85 R16

Approx. £150 incl. VAT ea.
www.pirelli.co.uk; 01283 525252



MUD CLIMB

With deep, slippery clay under the tyres, climbing this hill was tough. None of the tyres hauled us to the top. We measured the highest point reached in two attempts, with a standing start on muddy flat ground. The hill was ripped up from the outset.



BOG RUN

This shallow slope was covered in light grass and moss, which tore away to reveal the very slippery bog beneath. All tyres were tested on torn up ground. Full power, from a standing start in low second. A Discovery 3 on road tyres had no chance.



SIDE SLOPE

When wet grass covers an increasingly steep side slope you get a very dangerous off-road situation. The Defender ambled along the escarpment with no throttle in low first until any tyre began to slip sideways. We used fresh ground each time.



➤ ROCK CRAWL

A tricky one to measure, as no rock crawl line is ever quite the same. We had three marker points and rated the tyres according to how far the Defender made it across the dry, inclined, rocky stream bed between those points.



➤ GRAVEL BRAKING

Simple: drive down a gravel track at 35mph and hit the brakes hard when you reach a set of canes. Measure the distance from the cane to the front of the vehicle and record a stopping distance. Do it twice to make sure.



➤ TARMAC BRAKING

As above, except on dry tarmac at 40mph. For both braking tests, ABS came into play, meaning that the tyres got more chance to grip rather than slide. With one exception, the mud terrains stopped in a shorter distance on gravel.

➤ THE VENUE

If you've never had the pleasure of off-road driving at the Walters Arena Motorsport Complex in South Wales, then you need to get your club together, book the place for a day or two, and head to their massive private site at Seven Sisters near Glynneath and Abercraf, not far from Swansea. The site is used by all sorts of groups, from Wales Rally GB to BMW off-road motorcycle groups to 4x4 clubs. With gravel trails, bogs, lakes, rocks and mud, this place will keep you occupied for hours. It was the perfect location for our tyre test, providing all the relevant obstacles and terrain. It's easy and fun to get lost in the forests and there are plenty of challenging spots to test you and your motor. And your tyres, of course.

The Walters guys are helpful and friendly, and basically they just want you to enjoy their land.

Contact: Cliff Mainwaring 07850 783346
email: motorsport@waltersarena.com



Clockwise from above left: eight sets of tyres; two sets of wheels; the huge Walters Arena site; evaluating and scoring; 2007 Defender 110 used for all tests; decent UK mud underfoot.



We'd like to thank Mark Williams, Darren Bentley and Steve Rowntree from Kumho Tyres UK who spent a couple of days changing wheels and tyres for us between tests. They brought all the necessary kit, including tea, in a lorry and were very patient with us as we tried to get the tests right. Cheers, boys.